

ABSTRACT OF THE DISCLOSURE

A working-fluid moving device is a laminate of ceramic sheets, which constitute a channel. One of the ceramic sheets is formed to serve as a diaphragm. A piezoelectric/electrostrictive film is formed on the diaphragm. The channel houses first and second working fluids. The first working fluid is inferior to the second working fluid in wettability to the inner wall surface of the channel. When voltage is applied to the piezoelectric/electrostrictive film, the diaphragm is deformed, and the cross-sectional area of the channel at the central portion is reduced. The first working fluid which is present in the form of a single fluid mass at the central portion of the channel receives a repulsive force from the wall surface of the channel due to inferior wettability. As a result, the first working fluid is split into two fluid masses, which then move in the channel.